



May 14, 2021

Mr. Austin F. Callwood, Director
Division of Environmental Protection
Department of Planning & Natural Resources
45 Mars Hill
Frederiksted, V.I. 00840-4474

SUBJECT: East Fuel Gas H₂S Exceedance – May 8, 9, & 11, 2021

Dear Mr. Callwood:

This letter is submitted in compliance with Condition No. 2.4.5.1 of the Limetree Bay Title V permit as a follow-up to the email notifications to Ms. Verline Marcellin of the Division of Environmental Protection on May 8, 2021 at 9:25 AM and 10:38 PM and May 11, 2021 at 11:21 AM regarding the H₂S exceedance events at the east fuel gas system.

The Continuous Emissions Monitoring System (CEMS) recorded H₂S concentrations in the fuel gas in excess of 0.1 gr/dscf (162 ppm) based on a 3-hr rolling average (ref. Title V permit condition 3.2.2.1.11) intermittently from May 8-9, 2021 and on May 11, 2021.

The following table provides 3-hr H₂S data during the events.

Source			Source			Source		
Parameter Unit		EASTFGDR	Parameter Unit		EASTFGDR	Parameter Unit		EASTFGDR
		H2SPPM (PPM)			H2SPPM (PPM)			H2SPPM (PPM)
05/08/21	00:00	64	05/08/21	23:00	310	05/09/21	22:00	74
05/08/21	01:00	72	05/09/21	00:00	336	05/09/21	23:00	52
05/08/21	02:00	76	05/09/21	01:00	463	05/10/21	00:00	32
05/08/21	03:00	72	05/09/21	02:00	446	05/10/21	01:00	13
05/08/21	04:00	63	05/09/21	03:00	359	05/10/21	02:00	3
05/08/21	05:00	68	05/09/21	04:00	159	05/10/21	03:00	0
05/08/21	06:00	258	05/09/21	05:00	92	05/10/21	04:00	0
05/08/21	07:00	413	05/09/21	06:00	96	05/10/21	05:00	0
05/08/21	08:00	460	05/09/21	07:00	76	05/10/21	06:00	0
05/08/21	09:00	292	05/09/21	08:00	47	05/10/21	07:00	0
05/08/21	10:00	186	05/09/21	09:00	9	05/10/21	08:00	0
05/08/21	11:00	182	05/09/21	10:00	1	05/10/21	09:00	0
05/08/21	12:00	212	05/09/21	11:00	2	05/10/21	10:00	0
05/08/21	13:00	202	05/09/21	12:00	29	05/10/21	11:00	0
05/08/21	14:00	187	05/09/21	13:00	68	05/10/21	12:00	0
05/08/21	15:00	178	05/09/21	14:00	110	05/10/21	13:00	0
05/08/21	16:00	165	05/09/21	15:00	136	05/10/21	14:00	0
05/08/21	17:00	143	05/09/21	16:00	133	05/10/21	15:00	0
05/08/21	18:00	125	05/09/21	17:00	128	05/10/21	16:00	0
05/08/21	19:00	111	05/09/21	18:00	99	05/10/21	17:00	0
05/08/21	20:00	132	05/09/21	19:00	99	05/10/21	18:00	0
05/08/21	21:00	188	05/09/21	20:00	93	05/10/21	19:00	0
05/08/21	22:00	255	05/09/21	21:00	90	05/10/21	20:00	0



LIMETREE BAY
REFINING, LLC

Source		EASTFGDR
Parameter		H2SPPM (PPM)
Unit		
05/10/21	21:00	0
05/10/21	22:00	0
05/10/21	23:00	10
05/11/21	00:00	19
05/11/21	01:00	24

Source		EASTFGDR
Parameter		H2SPPM (PPM)
Unit		
05/11/21	02:00	43
05/11/21	03:00	95
05/11/21	04:00	133
05/11/21	05:00	146
05/11/21	06:00	129

Source		EASTFGDR
Parameter		H2SPPM (PPM)
Unit		
05/11/21	07:00	156
05/11/21	08:00	179
05/11/21	09:00	153
05/11/21	10:00	103
05/11/21	11:00	55

As mentioned in the letter to DPNR dated May 13, 2021, the analyzer technicians were investigating possible interference issues with the CEMS analyzer based on the results of colormetric tube sampling. Operations continued to take colormetric tube samples several times daily. The sampling results thus far showed in most cases the CEMS analyzer was reading either significantly lower or higher than the colormetric tube samples. The analyzer technicians are currently working with the CEMS vendor to troubleshoot potential issues with interferences in the analyzer.

Some of the colormetric tube samples showed elevated H₂S concentrations and therefore Operations continued sulfur shedding to reduce the sulfur load on the gas treating units. Operations also continued investigating the low-pressure and high-pressure fuel gas treating systems and discovered that a bypass valve from T-4850 may have been passing off-gas to the treated fuel gas. It's unclear how long the valve may have been passing to the treated fuel gas system. Upon discovery, Operations immediately attempted to close the valve and sealants were added to the valve. The valve continued to leak into the fuel gas system. Operations is currently preparing to blind the valve and remove it for repairs during this shutdown.

If you have any questions or need additional information, please contact Maria Aloyo at (340) 692-3781.

Sincerely,

Neil Morgan
VP, Refinery and General Manager
Limetree Bay Refining, LLC

Electronic Copy: Verline Marcellin (DPNR)
Robert Buettner (EPA)
Patrick Foley (EPA)
Harish Patel (EPA)